

**REMARKS**

The Amendment amends claim 9 and adds claim 21. Claims 1-11, 13-16, and 21 are currently pending.

The Action rejected the claims as obvious over U.S. Patent No. 6,676,549 to Fukuda in view of U.S. Patent No. 6,199,021 to Cote and Fukuda in view of Cote further in view of U.S. Patent No. 5,483,137 to Fey.

***Claims 1, 2, 5-10, and 13-16***

The Action argues that Cote discloses a “marker having angular positions corresponding to no, forward, and rearward movement of the chain (see Fig 2).” Action pages 2-3. Cote Figure 2, however, merely shows sensor locations. Even within the Specification, Cote discloses sensing “[c]rank speed [and] wheel speed”—it fails to teach or suggest sensing the direction of chain movement. Cote Col. 3, line 59. This failure to detect chain direction overlooks one of the advantages of the claimed invention. As mentioned in Specification Paragraph and [0087].

[0087] The aim of what has been described above is to permit the unit 6 to enable the corresponding actuator (in the example of embodiment illustrated, the actuator 4 associated to the front derailleur) with optimal advance for obtaining the required shifting of the chain properly; it having been detected simultaneously that the chain K is moving forwards, ***thus preventing the start of any attempt at gear-shifting when the chain is stationary, or else when the chain is moving backwards.***

With the claimed invention, the marker has positions corresponding to “no, forward, and rearward movement.” Using these positions, the claimed invention prevents a shift when the sensor detects no or rearward chain movement. See for example, claim 2 directed to “[t]he process according to claim 1, further comprising the steps of *preventing a shift when said sensor detects no movement or rearward movement in the transmission chain* and allowing a shift when said sensor detects forward movement in the transmission chain.”<sup>1</sup>

The importance of this invention is that it protects against chain, sprocket, and cycle damage from derailing chains. It also helps to prevent accidents that happen as a result of a derailing chain. Neither Fukuda nor Cote discusses or suggests a solution to this derailing problem or how their markers and sensors are configured to address these issues.

The remaining claims 1, 5, and 9 further define the invention and are allowable over the prior art.

### ***Claim 20***

Claim 20 is newly added herein, and recites a “means for determining if the movement is in a predetermined direction of forward bicycle travel.” Neither Cote nor Fukuda teaches or suggests this means for determining, in particular determining “forward bicycle travel.” Further, neither Cote nor Fukuda issues “a

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<sup>1</sup> Claim 6, which depends from claim 5, recites similar language.

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command signal for controlling a change in position of the motion transmission member with respect to the gear wheel when the associated signal indicates that the motion transmission member is moving in the predetermined forward direction..." as claimed. Finally, both references fail to teach or suggest "an activation switch responsive to the command signal for changing the position of the motion transmission member with respect to the at least one gear when the motion transmission member is moving in the predetermined forward direction." Since the references fail to teach or suggest these three elements, this claim is also believed allowable.

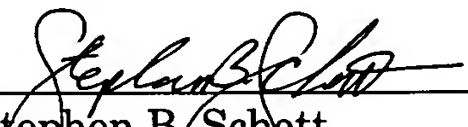
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**Conclusion**

The pending claims are now believed to be allowable over the prior art. Reexamination and a Notice of Allowance for the pending claims are respectfully requested. If the Examiner believes that a telephone conference would advance the prosecution of this case, the undersigned invites the examiner to call.

Respectfully submitted,

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